

ABSTRACT OF THE DISCLOSURE

It is an object to provide a semiconductor device capable of holding multibit information in one memory cell also when scaling for a nonvolatile memory progresses, and a method of manufacturing the semiconductor device. A trench (TR1) is formed in
5 a channel portion of an MONOS transistor. Then, a source side portion and a drain side portion in a silicon nitride film (122) of a gate insulating film (120) which interpose the trench (TR1) are caused to function as first and second electric charge holding portions capable of holding electric charges (CH1) and (CH2). In the case in which the electric charges (CH1) are trapped and the electric charges (CH2) are then trapped, thus, a portion
10 (130a) of a gate electrode (130) in the trench (TR1) functions as a shield. If a fixed potential is given to the gate electrode (130), the second electric charge holding portion is not influenced by an electric field (EF1) induced by the electric charges (CH1) so that the trapping of the electric charges (CH2) is not inhibited.